

USDC SCAN INDEX SHEET



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3:00-CV-01541 DAIMLERCHRYSLER AG V. FEULING ADVANCED

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Engelberg

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17 UNITED STATES DISTRICT COURT
18 SOUTHERN DISTRICT OF CALIFORNIA

19 DAIMLERCHRYSLER AG and
20 MERCEDES-BENZ USA, INC.

21 Plaintiffs,

22 v.

23 FEULING ADVANCED
24 TECHNOLOGIES, INC. and JAMES
25 J. FEULING,

26 Defendants.

CV No. 00cv1541 L (NLS)

**DECLARATION OF JAMES LYONS IN
SUPPORT OF PLAINTIFFS' MOTION FOR
SUMMARY JUDGMENT OF PATENT
INVALIDITY**

Date: December 18, 2000
Time: 10:30
Courtroom: 11
Hon. M. James Lorenz

17

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CLERK, U.S. DISTRICT COURT
SOUTHERN DISTRICT OF CALIFORNIA

BY:

DEPUTY

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11 **DAIMLERCHRYSLER AG et al.**

12 UNITED STATES DISTRICT COURT
13 SOUTHERN DISTRICT OF CALIFORNIA
14

15 **FEULING ADVANCED**
16 **TECHNOLOGIES, INC.,** a Nevada
corporation,

17 Plaintiff,

18 v.

19 **DAIMLERCHRYSLER AG et al.,**

20 Defendant.
21

CV No. 99-CV-0374 L (NLS)

**DECLARATION OF JAMES LYONS IN
SUPPORT OF DEFENDANTS' MOTION FOR
SUMMARY JUDGMENT**

Date: July 3, 2000

Time: 10:00 a.m.

Courtroom: 11

Judge: Hon. M. James Lorenz

22
23
24 I, James Michael Lyons, hereby declare that:

25 1. I received a B.S. degree (*cum laude*) in Chemistry from the University of
26 California at Irvine in 1983. I received a M.S. degree in Chemical Engineering from the
27 University of California at Los Angeles in 1985. I am a member of the Society of Automotive
28 Engineers. From September of 1985 through April of 1991, I worked for Mobile Source

1 Division of the California Air Resources Board ("CARB"). The role of the Mobile Source
2 Division is, among other things, to monitor and to reduce the amount of air pollution generated
3 by automobiles in California. In April 1991, I joined Sierra Research as a Senior Engineer.
4 Today, I am a Senior Partner at Sierra. Sierra is an air pollution consulting firm that specializes
5 in issues related to vehicle emissions and whose clients have included various government
6 agencies, such as CARB and the United States Environmental Protection Agency, as well as
7 private-sector corporations and associations, including several major automobile manufacturers.

9 2. As a result of my work at CARB and Sierra, I am familiar with the different
10 types of engine designs and emission control technologies being employed by vehicle
11 manufacturers today. Also, through my work at CARB and Sierra, as well as my participation
12 in the Society of Automotive Engineers, I have become familiar with the ordinary level of skill
13 typically exhibited by engineers working in the field of gasoline-powered motor vehicle
14 emissions control, which includes many aspects of engine design.

16 3. I have reviewed the *Declaration of Georg Leipner in Support of Defendants'*
17 *Motion for Summary Judgment including Certified Translation* and exhibits and the *Cover*
18 *Page, Abstract, Title Block of Figure 5.1, Pages 1-7, 17, 23-24, and 26-28 of the German-*
19 *Language Thesis Written by Georg Leipner, including Certified Translation.* The Leipner
20 thesis describes in detail a three-valve-per-cylinder head and combustion chamber system for a
21 gasoline-powered engine. Two of the valves are used as intake valves and the third as an
22 exhaust valve. The design also incorporates two spark plugs per cylinder.

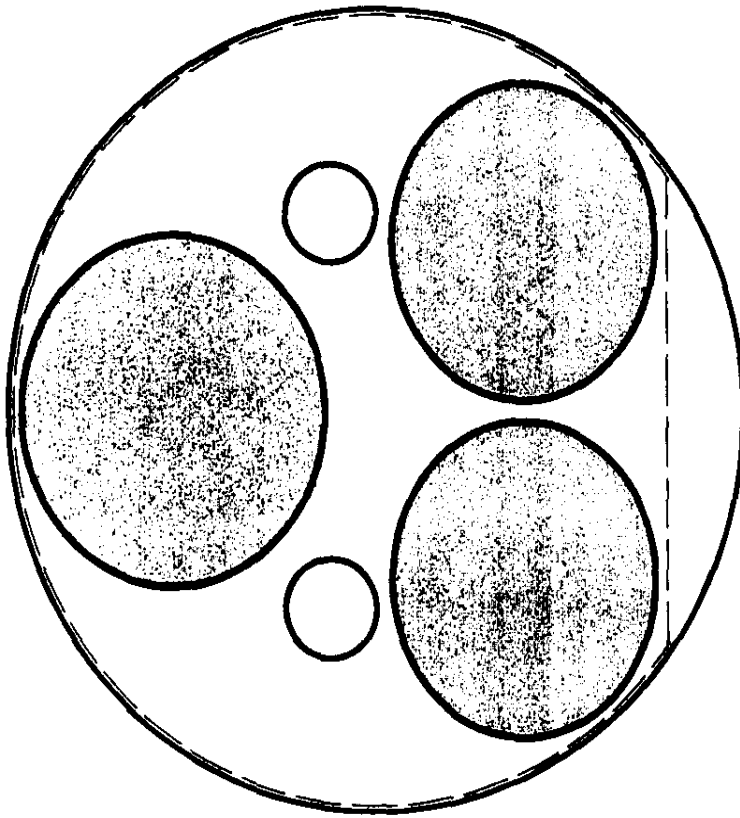
24 4. My staff and I have examined and measured the cylinder head (Part No. A112
25 010 142 0) from a 1999 Mercedes-Benz ML320 sport-utility vehicle. This vehicle uses a 3.2L
26 V6 engine with three valves per cylinder. Two of the three valves are used as intake valves,
27 and the third valve is used as an exhaust valve. This engine has two spark plugs per cylinder.
28

5. The design of the cylinder head and combustion chamber system of the Mercedes 3.2L V6 engine is fundamentally the same as that described in the Leipner thesis. In particular, the layout of the valves and spark plugs in the Mercedes 3.2L V6 is fundamentally the same as described in the Leipner thesis. The fact that the two designs are fundamentally identical can be observed directly from Exhibit 1, which I have attached to this declaration. Exhibit 1 is a drawing that my staff and I prepared using measurements made on the Mercedes 3.2L V-6 engine and data from the Leipner thesis. Exhibit 1 shows a side-by-side comparison of the two designs where both have been scaled proportionately from their actual sizes to allow for a direct comparison on a single sheet. The sizes and locations of the intake (shown in blue) and exhaust valves (shown in red), as well as the location of the spark plug bores (shown in green) for both designs are highlighted.

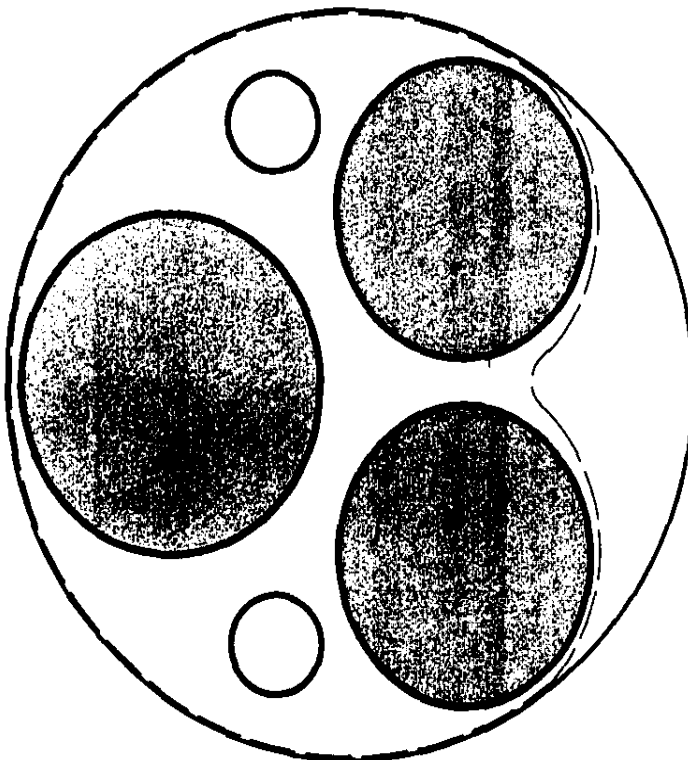
6. I declare under penalty of perjury that the foregoing is true and correct.

7. Executed on March 23, 2000.

James Michael Lyons



LEIPNER DESIGN-5.0L V-8



MERCEDES-BENZ DESIGN-3.2L V-6

- ☐ INTAKE VALVE
- ☐ EXHAUST VALVE
- ☐ SPARK PLUG BORE

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